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S P E C I F I C A T I O N

OF

JOHN PALMER DE LA FONS.

EXTRACTING AND FIXING TEETH.

L O N D O N :

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Extracting and Fixing Teeth.

DE LA FONS' SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JOHN PALMER DE LA FONS, of George Street, Hanover Square, Dentist, send greeting.

WHEREAS His present most Excellent Majesty King George the Fourth,
5 by His Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Sixteenth day of July, One thousand eight hundred and twenty-five, in the sixth year of His reign, did, for Himself, His heirs and successors, give and grant unto me, the said John Palmer De la Fons, His especial licence that I, the s^d John Palmer De la Fons, my eñors,
10 admñors, and assigns, or such others as I, the said John Palmer de la Fons, my eñors, admñors, and assigns, should at any time agree with, and no others, from time to time and all times during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of Berwick-upon-Tweed, my Invention of
15 “AN INSTRUMENT FOR EXTRACTING, AND METHOD OF FIXING TEETH;” in which said Letters Patent is contained a proviso, obliging me, the said John Palmer De la Fons, by an instrument in writing under my hand and seal, particularly to describe and ascertain the nature of my said Invention, and in what manner the same is to be performed, and to cause the same to be inrolled in His
20 Majesty’s High Court of Chancery within six calendar months next and immediately after the date of the said in part recited Letters Patent,

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as in and by the same, reference being thereunto had, will more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said John Palmer De la Fons, do hereby declare that the nature of my said Inventions, and the manners in which the same are to be performed, are particularly described and ascertained in and by the Drawing hereunto annexed, and the following description thereof (that is to say):—

My said Invention of an instrument for extracting teeth consists in combining the principles of the paces or forceps, and the German key, in one and the same instrument, by which said combination I obtain advantages not possessed by either of those instruments separately.

In the Drawing, Fig. 1 is a front view, Fig. 2 a side view, and Fig. 3 an end view, of a pair of my improved paces or forceps. A, the claw, similar to the claws of the common paces or forceps; B, a bolster, similar in its use to that of the German key, but differently applied, having a screwed hole in it which fits upon a screw C, affixed to the opposite jaw of the paces, so that it can be raised or lowered or turned into any required position in use, and so as to take a higher or lower purchase upon the tooth, according to the will of the operator. In Figs. 1 and 2, the claw is shewn as placed opposite to the bolster; Fig. 4 shews it below or short of the bolster; and Fig. 5, as extended beyond it. Fig. 6 shews one of these instruments with the handles bent or curved at D, so as to bring them into a line with the purchase or gripe of the instrument, and also having a square formed at the shoulder of the screw C, to receive a square hole made in an arm E, Figs. 7, 8, and 9, and to which arm the screw F is affixed. The arm B is secured in its place upon the square of the screw C, by a nut G, as shewn in Fig. 9, and it can either be placed in the position there shewn, or in the opposite one, as indicated by the dotted lines; the bolster B is shewn separately in Fig. 10. Fig. 11 represents part of the jaw of Fig. 9 as turned up, in order to shew the square shoulder of the screw C; by this means one pair of forceps may be made to answer the purpose of the three, shewn in Figs. 1, 4, and 5. A solid bolster B, affixed to an arm with a square hole in it, as shewn in Fig. 12, may also be substituted for those before described if thought desirable. In order to increase the power of the purchase or gripe of these forceps upon a tooth, the following contrivance may be adopted:—In Figs. 13 and 14, H is a lever having a screwed stud I in its centre, which can be passed through either of the cylindrical holes J, J, made in one of the handles of the forceps, and be secured by a screwed nut K. In the opposite handle a hook L is formed, on

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which the lever H acts when it is turned in the direction shewn by the arrow in Fig. 14. The handles themselves are also bent at their ends, as shewn in that Figure, in order to clear each other and to give the proper length of leverage in action. Fig 15 is an under view, Fig. 16 a front view, and Fig. 17
5 a side view, of an improved forceps, having an adjusting bolster B, as before described, and also a moveable claw M, sliding upon a fixed claw A; the moveable claw M has a spring N, by which it is affixed to the same limb of the forceps which carries the fixed claw. This spring has a double curvature given to it, as shewn in the various Figures, and is besides confined in its
10 action by being lodged under a hook O, affixed to the limb; the moveable claw and spring are shewn separately in Figs. 18 and 19, and the claw by itself in Fig. 20. The action of this moveable claw M is shewn in Figs. 21 and 22, in the former of these Figures the claw M is shewn as just in the act of laying hold of the tooth P, whilst itself lies upon the outer end of the fixed claw A,
15 being kept from sliding along it by the action of the spring, on being pressed against the tooth, however, by closing the forceps, it slides along the fixed claw A, into the position shewn in Fig. 22, bringing the tooth along with it, the hand of the operator keeping the forceps steady. The forceps with the bolster and the fixed claw A, forming two opposite inclined planes, the tooth
20 is of necessity forced to rise up on the forceps being closed. Figs. 23 and 24 are intended to shew the form given to the fixed claw A, and by means of which the moveable claw M slides upon it in a position parallel to the bolster B. In Fig. 23, which is a side view of the fixed claw A, the four parallel dotted lines shew the direction of the different parts of its surface which
25 act against the moveable claw; and in Fig. 23, which is an under view, the four dotted radial lines shew the direction of the same parts of the surface towards the centre of motion. Figs. 25 and 26 are side views of an improved forceps with a sliding claw M moving upon a fixed claw A, adapted for extracting front teeth. The sliding claw M is here shewn as being affixed to a spring N, which
30 is secured to the opposite jaw of the forceps. Fig. 25 shews the claw in the act of seizing the tooth P; and Fig. 26 as having slipped down the fixed jaw A, bringing the tooth along with it, owing to the contrary inclined planes of the fixed claw A and the bolster B, as in the forceps last described. Fig. 27 is an end view of the forceps shewn in Figs. 25 and 26; in place of the bolster
35 B, a smaller one, shewn in Fig. 28, may be substituted for very narrow teeth. Instead of affixing the sliding claw M to a spring, it may be united to the opposite jaw of the forceps by jointed arms, as shewn in Figs. 29 & 30, at Q, Q, and M. The sliding claw M is prevented from quitting the fixed claw A.

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by a loop R. The arms Q, Q, are thrown forwards by the action of the cleft or forked spring S, and of the secondary spring T upon the spring S, as shewn in Fig. 31. Fig. 32 is a representation of the opposite side of these forceps. In Fig. 29, the handles of these forceps are shewn as being bent in such a manner as to keep clear of the face when in use, and which curvature may also be applied to the forceps shewn in Figs. 25 and 26. The bolster B may be made to adjust upon a screw C, as before described, or be made solid with the jaw, as shewn in Fig. 26.

My said Invention of a method of fixing teeth chiefly consists in the introduction of double springs in place of single ones as usual, whereby I am enabled to obtain a greater degree of play or action in the springs with the required strength, and thus to procure a greater hold, so as to cling around the smaller parts of the natural or fixed teeth, and avoid any shake or looseness in the artificial teeth when in use, and yet they may be taken off more readily when required and without injuring the sound or natural teeth. Fig. 33 represents a series of natural and artificial teeth belonging to the upper jaw of an adult; the natural teeth are shewn in outline whilst the artificial ones are shadowed. U, U, are two artificial front teeth or incisors; and V, V, two grinders or molares, also artificial. W, W, &c. represent the natural teeth to which the artificial ones are to be affixed in the following manner:—X, X, X, represent the gold mounting, consisting partly of a plate and partly of flat and round springs properly combined. The artificial teeth V, V, are held in a frame, the outer part of which at V, V, is composed of a double flat spring, and the whole are connected with the inner part of the frame at X by two or more rivets passing through the teeth and sides of the frame, as shewn by the dotted lines. The outer spring at V, V, is made shorter than the inner one, and is carefully tapered both in width and thickness, so as to afford the greatest freedom of action. This part of the mounting is secured around the natural back tooth W, adjoining thereto, by means of the springing clasp Y. The two artificial front teeth U, U, are held to the plate of the mounting by means of rivets. Fig. 34 is an edge or side view of the parts described. The other end of the mounting is secured to the natural back teeth W, W, by an arched or bent springing wire Z (shewn separately in Fig. 35), which passes over the division between two of the hinder teeth, and extends or branches on their outsides both ways, nearly reaching to the gums, and partly embracing the teeth. The outer ends of the bent springing wire Z are turned inwards, so as to be forced outwards by the pressure of the teeth upon them. Fig. 36 represents another case in which three artificial teeth are to be secured to the natural

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teeth. X, X, &c. is the gold mounting; *a, a*, is a doubly bent ring made to pass over the divisions between three natural teeth, and to lay hold of the middle tooth near the gums. This is also shewn in the side view of it, Fig. 37. The other end of this mounting is secured to one of the natural back teeth by the single arched ring *b* the outer side of which is prolonged forwards in a double spring at *c*, so as partially to embrace the next natural tooth. Fig. 38 is a view of the inside of a gold mounting holding five artificial teeth secured to it by rivets at *d, d*, &c. This mounting is secured at one end to one of the natural back teeth by a pair of bent double springs *e, e*, nearly forming a ring to surround the tooth, and at the other end by an entire arched ring *b*, which may also, if required, be made to pass over a second division between the teeth, and thus be made to embrace two back teeth instead of one only, as shewn. Figs. 39 and 40 represent a mounting containing two artificial front teeth only; these are to be secured to the natural back teeth exactly in the same manner as in Fig. 38 to avoid all appearance of the objectionable fastenings. Fig. 41 shews it as in its place in the mouth; *f, f*, &c. in Figs. 34, 37, 38, and 40, show the front artificial teeth as projecting beyond the mountings X, X, so as to touch the gums. These artificial teeth appear as natural teeth, the fastenings in this as well as in the other methods being concealed from view, the front teeth being secured to the back teeth. The indentations *g, g*, &c. in the mountings are made to fill any hollows between the natural teeth, so as to afford them additional support.

I do not mean or intend hereby to claim as my Invention any of the different parts of these paces or forceps which may be already known or in use; but I do hereby claim the aforesaid combinations of the principles of the paces or forceps with the German key in the different methods shewn, and particularly those described in the references to Figs. 1, 2, 3, 4, 5, and 6, and also those shewn in Figs. 25, 26, 27, and 28. Neither do I mean or intend to claim the Invention of any of the methods of fixing teeth, shewn and described which may be already known or in use; but I do hereby claim the application of the double springs in the various ways shewn.

In witness whereof, I, the said John Palmer De la Fons, have hereunto set my hand and seal, this Fourteenth day of January, in the year of our Lord One thousand eight hundred and twenty-six.

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HARVEY.

AND BE IT REMEMBERED, that on the Fourteenth day of January, in the year of our Lord 1826, the aforesaid John Palmer De la Fons came before our said Lord the King in His Chancery, and acknowledged the Specification aforesaid, and all and every thing therein contained and specified, in form above written. And also the Specification aforesaid was stamped according 5 to the tenor of the Statute made for that purpose.

Inrolled the Sixteenth day of January, in the year of our Lord One thousand eight hundred and twenty-six.

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